

» Review Questions

Multiple-Choice Questions

- What percentage of United States energy comes from fossil fuels?
 - 10%
 - 18%
 - 37%
 - 62%
 - 85%
- Coal is often contaminated with what element?
 - Carbon
 - Silicon
 - Sulfur
 - Uranium
 - Sodium
- The amount of energy needed to heat 1 gram of water to 1 degree Celsius is a
 - gigabyte
 - pound
 - liter
 - calorie
 - nanosecond
- Solids, liquids, and gases created through the compression of ancient organic plant and animal material in the Earth's crust are called
 - biomass
 - inorganics
 - sustainable fuels
 - nuclear fuels
 - fossil fuels
- About 75% of the original energy in oil is lost during distillation into
 - kerosene
 - gasoline
 - jet fuel
 - road tar
 - ethanol
- Coal deposits that have been mapped, measured, and economically recoverable are known as
 - ultimate reserves
 - sustainable reserves
 - proven reserves
 - clean reserves
 - known reserves
- The force needed to accelerate 1 kilogram by 1 meter per second is called a
 - ton
 - meter per second
 - joule
 - calorie
 - newton
- In the industrialized world, the burning of fossil fuels is probably the biggest single source of
 - air pollution
 - water pollution
 - urban blight
 - economic income of developed countries
 - international tensions between nations
- Twenty percent of the total U.S. energy demand is used for lighting, heating, air conditioning, water heating, and
 - cooking
 - plastics
 - transportation
 - international export
 - construction
- The first oil well in North America was drilled in Oil Springs, Ontario, in
 - 1855
 - 1875
 - 1905
 - 1935
 - 1955
- Natural gas has much less waste since it needs little refining, is transported through underground pipelines, and burns with
 - boron as an additive
 - 75 to 95% efficiency
 - atmospheric particulates
 - smaller smoke stacks
 - the same efficiency as oil

12. Coal dust is very toxic to the lungs and causes
- (A) arthritis
 - (B) cancer
 - (C) premature births
 - (D) black lung disease
 - (E) bad breath
13. Before fossil fuels became commonly used, what was popularly used for lamp oils and candles?
- (A) Lye
 - (B) Bacon grease
 - (C) Whale oil
 - (D) Seal fat
 - (E) Natural gas
14. A sedimentary rock containing solid organic matter is called
- (A) tephra
 - (B) kerogen
 - (C) granite
 - (D) igneous rock
 - (E) gneiss
15. Prior to mine reclamation laws, mine drainage and acidic runoff from coal tailings were toxic by-products of
- (A) tillage
 - (B) urban development
 - (C) underground mining
 - (D) strip mining
 - (E) industrial processing
16. A hotly debated area with large oil reserves is
- (A) NAWR
 - (B) USDA
 - (C) western Europe
 - (D) WARN
 - (E) ANWR
17. Coal contaminants must be removed by washing or flue-gas scrubbing or they will be released during burning to form sulfur dioxide (SO_2), sulfate (SO_4), CO_2 , NO_x , and
- (A) $\text{C}_8\text{H}_8\text{O}_3$
 - (B) particulates
 - (C) KCl
 - (D) CH_3NH_2
 - (E) Ga_2O_3
18. When coal is used to produce electricity, what fraction of the original energy is lost in thermal conversion at the plant?
- (A) $\frac{1}{4}$
 - (B) $\frac{1}{3}$
 - (C) $\frac{1}{2}$
 - (D) $\frac{2}{3}$
 - (E) $\frac{3}{4}$

